THE BOARD OF HEALTH NURSE: WHAT SHE CAN DO FOR THE PUBLIC WELFARE IN A SMALL CITY.

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Public health problems in the past have been chiefly attacked through control of the environment. This method involved many true principles and has brought about a cleaner, safer world. Nevertheless, accumulated facts clearly indicate that even the most efficient surveillance of the environmental factors alone still leaves half the problems of prevention unsolved. What is now needed is a greater degree of attention to the individual and his manner of life.

Consider that greatest single responsibility of boards of health—the prevention of tuberculosis. Improved housing and factory conditions, greater municipal cleanliness, purer food and water supplies, and reduction of dust in the streets, when first inaugurated did much to bring about a marked and steady diminution in the disease. But the march of the great "captain of the men of death" was only checked, not halted. In spite of all, infected persons expelling large numbers of germs continued to act as potent foci of infection, while well persons living in apparently satisfactory surroundings continued to fall victims. Even the multiplication of hospitals failed to remedy this state of affairs, for these could accommodate but a small fraction of the infective cases. Regulation of the environment had reached its limit. But the root of the problem has now been located: in the ignorance of patient and public as to the nature of the disease and the failure of the individual—the well, but more especially the sick—to apply certain simple prophylactic principles.

Consider another problem, which rivals in importance that of tuberculosis—the prevention of infant mortality. I need not review its extent, summarized as it is in the facts that 10 to 15 per cent. or even more of the infants in our cities die before reaching the age of a single year, and that on the best authority at least 50 per cent. of these deaths are reasonably preventable. The recognition of these facts, at least in a general way, is not new, nor have attempted remedies been wanting. Institutional care was early looked to for aid, but this disappointed hopes as a means of general and successful application. The first remedy of a truly preventive character was improvement of public milk supplies. Great things were expected of

this, and great good was actually accomplished, but still the problem was solved only in part. It was then seen that the innermost difficulty lies at the point where all factors, and not simply one or two, converge,—in the direct hygienic care of the child by the mother. Again, as with tuberculosis, the personal factor in the home is the all-important one, compared with which the external advantages and disadvantages are secondary.

So in both tuberculosis and infant mortality problems we see that the same element of personal prophylaxis lies at the center of all factors. If all tuberculosis patients and their families could be taught and persuaded to act as their own sanitary police, and if all mothers could be instructed to apply a few fundamental rules in the care of their infants, the remaining cares of the sanitary authorities in these matters would be secondary. Hence the remedy: *personal instruction in the home.* The individual is the center where public and personal hygiene meet and mingle. Health authorities should therefore seek to utilize every means of influencing the hygiene of private life where it has a public bearing or tends to nullify the benefits of public sanitation. Of such means direct personal instruction is the very chief. Where sanitation of the environment halts because it cannot go further there is still need for instruction which will enable people to make the most of that environment. Where the law stops, instruction begins. The situation is perfectly summed up in the Earl of Derby's dictum: "Sanitary instruction is even more important than sanitary legislation."

Now, as to ways and means. How is instruction best to be carried into the home? First of all the physician has always been, to a greater or less extent, an educator in matters of hygiene public and private, frequently to his patients and occasionally to the general public. But the demands of practice, the infrequency of his visits in the families which need constant preventive information, and the fact that his chief interest is in curative medicine, make it necessary that prevention be assumed almost entirely by the public health authorities. The individual and family now get less preventive instruction from the busy doctor, while every day the complexity of life demands more. The general publicity of the health department does not fill the needs of the individual case. In order to meet the demand of the day the health authorities must put into action another factor. That factor is the board of health nurse.

The nurse, acting upon the official information and with the prestige of the health department, goes into the home. There her first duty is inspection. Her observation as a trained worker will take in all the details of home, surroundings, and person which are essential to a right judgment of the case. She fills out a standard card with accurate statements of these things for record. The various conditions—housing, cleanliness, intelligence, economic standing, etc.—may conveniently be graded,

as accurately as possible, into certain arbitrary classes indicated by the letters "A," "B," etc. Artificial as this may at first sight seem, it is of great value both in everyday practice and in working up statistical results. Experience shows that a workable but full system of records, even though very imperfect, should be kept from the very start. To "show good" is as important as to "make good," especially when there arises the question of securing financial support.

The second duty of the nurse is supervision, both of the person and of his surroundings. In tuberculosis supervision of the patient is very essential and involves every move made by him as well as his immediate personal conduct. Care in the disposal of sputum and proper segregation and treatment are the chief items. The tuberculosis nurse brings to bear the resources and agencies which may be of use, always having in mind chiefly the safety of the community, but also the welfare of the patient. In the supervision of the surroundings the nurse's field is wide. She should have all the powers of a sanitary inspector for entering premises and examining into possible unsanitary conditions. She must be familiar with the laws and ordinances touching such conditions. As a sign of authority and a protection she should be provided with a distinctive badge. She will report dark and dirty tenements, windowless rooms, breeding places for flies, and in general secure the best surroundings that the sanitary ordinances can demand.

Finally, as the chief function of the board of health nurse, comes instruction. This, as already stated, is essentially preventive in nature and hence is for the well as much as for the sick. The associates of the tuberculosis patient as well as the patient himself are instructed how the disease may be avoided. Well babies, quite as much as sick ones, are kept under observation. At her command should be all the information of the health department regarding the qualities of the various milk supplies. She teaches the home modification of milk for infants, and the proper care of milk in the home, without which the best milk inspection is rendered valueless. But prescribing of formulas or medicines, and actual nursing care and relief work are beyond her field; these must be referred to other agencies.

It must be remarked here, in passing, that a misunderstanding may readily arise from the use of the term "nurse." In common usage the word of course implies manual service—actual nursing. Such is the work of the "trained" nurse and of the (also "trained") "district" or "visiting" nurse who performs nursing service in the poorer districts. Now the board of health nurse, as has been seen, has no such function, but quite a different one, of preventive instruction rather than alleviation or cure. Yet her present titles are more than likely to create confusion in the popular mind. This is accentuated by the fact that the board of health nurse

and her privately maintained sisters doing similar work are trained nurses to begin with and are frequently called "visiting" nurses. There is certainly need for a new and distinctive title. The term heading this paper is distinctive but lengthy; besides which, instructional work is at the present time more frequently than not performed by nurses under the direction of private organizations. The same may be said of "public health nurse." Perhaps on the whole the simplest and best name for the new recruit to the army of public welfare workers is that of *health nurse*. This has at least the merit of brevity and of indicating that the positive promotion of health, rather than actual nursing and cure, is her weapon against disease. Anti-tuberculosis nurses and infant welfare nurses may have their specific titles, but all may be called "health nurses," while the general term is essential where one nurse carries on the two kinds of work.

The work of the health nurse in a small city will, as already implied, fall in general into two classes: prevention of tuberculosis and of infant mortality. In the smallest cities, say of not much over 10,000 population, one nurse may cover both fields; in the larger there will be two or more, devoted to their special objects. Details of procedure, based upon the simple outline which has been given, are beyond the scope of this paper. One point, however, is worthy of special notice,—that her work will be very diversified and that she will touch the life of the community at many points. If she is caring for babies she will be the first defence against ophthalmia neonatorum and blindness of infants. The importance of this single incidental fact is vast. A nurse working under the observation of the writer discovered two unreported cases of ophthalmia, saw that they received such treatment as saved the eyesight (obtaining the aid of district nurses for the purpose), and later furnished evidence on which the midwife was fined for failing to report as required by state law in cases of sore eyes.

She will have a close observation of midwives and their methods and will exert an educational influence upon the many who are careless or ill-educated. It frequently happens that half the deliveries are attended by these women, without any systematic inspection of their work. The nurse may discover and report for prosecution illegal practice of midwifery or medicine of which the authorities would otherwise have no suspicion; and these evils go on to a greater extent than is generally supposed. When such things as these develop, as they surely will in the practice of an alert nurse, they must be called more than incidentals.

The board of health nurse in either phase of her work will be constantly in touch with the bureau of charities to refer to them families needing aid, with the city physician to secure medical service for the poor, with the visiting nurses' settlements, with hospitals and dispensaries, and with other agencies too numerous to mention. Her influence in the home will touch

all sides of domestic hygiene. Where the power of the sanitary inspector leaves off, her influence begins.

I have dwelt at some length on the nature and value of the work of the health nurse because I believe that these things are not recognized as they should be. In the larger cities of the country the nurse is a familiar associate of the health officer and the social worker, but in the smaller cities this is not at all the case. There she has yet to come into her own. Contrary to the usual impression (even perhaps among health officials themselves), there is a particular need for the health nurse among the small cities of the country.

That such a need exists, frequently in an aggravated degree, is readily understood from simple considerations. Tuberculosis, for example, thrives best under urban conditions—poor housing, economic pressure, poverty, overwork, alcoholism, and the congestion which means lowered vital resistance and ready modes of infection. It is also under such conditions that the greatest ignorance as to the disease is encountered. Infant mortality is greatest under the same circumstances. But the significant fact is that such conditions are by no means confined to the large cities. On the contrary they may, and frequently do exist in small centers of population. In a village of a dozen or so dwellings clustered about a mill or factory all the unfavorable features of typical big city congestion frequently appear. The situation is the worse where modern sanitation has not yet come upon the scene. No community is free from this danger; unawares many have fallen into it; and these range all the way from the factory hamlet of a hundred to the city of a million.

Nor are these considerations without statistical confirmation. A casual glance at, say, Table 3 of the United States Mortality Statistics for 1910 will show numerous instances of very high death rates from tuberculosis among the smaller cities (*i.e.*, of from ten to fifty thousand population). This is true of any region where industrial demands have given rise to sanitary problems. My own city, of 30,000 people, has as heavy a tuberculosis death rate as the neighboring city Newark, of ten times the population; and this is due chiefly to the presence of a predisposing industry, hatting, and a large factory element. Unfortunately, infant mortality figures must be based upon birth returns, which can be thoroughly relied upon in so few cities that such figures are not available, but they may certainly be expected to show similar phenomena.

All this goes to shows that it is the small cities, rather than the larger which are already started along right paths of prevention, that must awaken to their problems. It is surely one of the greatest needs of today that the public health methods and organization that have proved their worth in the larger cities should be extended to the smaller. Too often some disastrous epidemic of typhoid or of scarlet fever is required to bring about

reorganization of a backward régime. Little of course can be accomplished without an efficient, full-time health officer appointed for a four-year term or more and supported by adequate financial means. And among the foremost of his instruments in the attack on the vital problems mentioned will be the health nurse.

As to the plan of campaign, there is no safer principle to follow than that of concentration and thoroughness. Experience shows that the natural tendency to spread over as large a territory as possible is to be guarded against. Regarding matters of organization, reference may be had to two stimulating papers by Professor Selskar M. Gunn: one on modern board of health methods in small cities and the other upon the study and prevention of infant mortality in such cities.*

All educational endeavor works slowly, though none the less certainly. The work of the health nurse is no exception. Immediate results in the ordinary mortality figures cannot be expected, and fluctuations due to climatic, sociological, and other factors may be expected at times to mask the good accomplished. On the other hand, detailed study more readily throws light upon progress. In Orange we found that the first year of the infant mortality work resulted in a statistically corrected death rate among the infants under observation (practically only midwife cases) of only half that of the infants in the city as a whole. Yet that same year the general infant mortality rate, evidently affected by unusually trying weather conditions, rose from 110 to 139. The tuberculosis death rate during the years that the nurse has been at work has shown marked decreases below those which would normally have been expected. And in all this not the least gratifying phase has been the practically universal welcome which these nurses have received from the public and the confidence which through their tact and usefulness they have inspired.

Finally, a survey of the fields of tuberculosis and infant mortality prevention leads to the conclusion that, for the highest efficiency, all the diverse agencies involved must be correlated under the health authorities. Under our democratic and anti-paternal customs of government the value of new enterprises for public welfare must first, apparently, be demonstrated through private initiative before official powers and moneys will move. Public responsibilities are frequently pointed out by private philanthropies. And the official powers require more than demonstration; they require the insistent demand of the public. In this fact lies half the philosophy of campaigns of publicity. The history of tuberculosis work is a familiar example of these things, and the organization for prevention of infant mortality stands now where the former stood a decade or more

*"Modern Board of Health Methods in Small Cities," published in the JOURNAL of this Association for May, 1911; and "An Outline for the Study and Prevention of Infant Mortality for Boards of Health of Small Cities," *Bull. Am. Acad. Med.*, December, 1910.

ago. The charities have done admirable work, but it is due time, particularly in the small cities, that the public authorities assume the bulk of the burden.

Consultation and milk stations, tuberculosis hospitals and dispensaries, are best operated and maintained by the health department; and these should be regarded as profitable municipal investments, as benefits which the community may expect from its government and for which the public through its taxes should pay, rather than philanthropies. The registration of births and deaths, I scarcely need say, should invariably be controlled by the health department. Too frequently these important records which form the basis of vital statistics—the bookkeeping, as has been said, of the health department—are kept by another city office which cannot be expected to take an interest in their statistical value, and are seen at rare intervals, if at all, by the health officials.

There will always be plenty of room for private endeavor in the solution of these public health problems. The health officer cannot look for control of all the agencies, and he must be constantly in coöperation with the charities which will do much to lighten his labors. But these should all take their places in a general organization scheme of which the board of health is the head. And in all this *the health nurse*, the means of central correlation, will be the most essential single factor.

DISCUSSION.

DR. G. W. GOLER, *Rochester:*

I rather agree with most of what Mr. MacNutt has said, but I think the work of the health nurse is something quite different from what Mr. MacNutt has spoken of. I think the business of the board of health nurse is to help in the work of the making of a social survey in the town in which she lives. Not only is she to aid in the problems relating to the prevention of tuberculosis and infant mortality, but to try to find out for us the habits and manners of the people—things such as these: what are the housing conditions of the people of her town? What is the average wage received by the people she visits? What percentage of that wage is expended by those people in rent? How many children are there in a given family under fourteen years of age and how many over fourteen? How many of the children over fourteen are engaged in gainful occupations? What do they get and how many are there in family?

I think it must be perfectly plain that the health nurse can do very little for the prevention of ophthalmia neonatorum. She gets in, as a rule, altogether too late for that, but she can find out how many children are born in the family, and she can, by verification of the records of vital statistics, find out whether these births have been recorded.

We have endeavored in Rochester to make a social survey of this kind with the aid of a few health nurses that we have. We know, for instance, what the average income is in 500 families; it is about $10 a week. We know that 26 per cent of the income is paid for rent; that nearly 10 per cent of the children recently born were not placed on the health register two years ago. I think it ought to be the business of the health nurse to ascertain these things, so that we may have the beginning of a social survey of the health of our town, and so that we, as health officers, may know something about the sociology of the town in which we live.